



PN01-149-1-24

Remote Semi-Automatic Welding System

Problem

The INEEL's Three Mile Island spent fuel transfer project needed to decrease the time required to weld shield plugs to stainless steel canisters.

Baseline Technology

Manual welding by two workers.

Innovative Technology

The Remote Semi-Automatic Welding System is a robotic system that automates shield plug welding.

Comparison

This system reduced manual operations and increased weld deposition rates.

Benefits

This semi-automatic system reduced the time required to weld shield plugs, cut in half operator radiation exposures, resulted in a cost savings of more than \$1 million, and contributed to meeting an Idaho Settlement Agreement milestone by completing fuel transfers to dry storage ahead of schedule.



SPENT NUCLEAR FUEL PROGRAM

Project: ID-SNF-104N
Constructed New Facilities – Non Defense